

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended)

A method of extracting a face area from an image including a human face, the face extraction method comprising the steps of:

displaying the image and a predetermined face template;

carrying out position matching between the face template and the face area to be extracted, by moving the face template and/or the image so that the face template is positioned on the face area to be extracted, transforming and/or rotating the face template and/or the image on the face area position according to an input from input means by a user; and

extracting the face area based on a result of position matching.

Claim 2. (Original)

A face extraction method as defined in Claim 1, wherein the step of extracting the face area comprises the steps of:

calculating a degree of matching between the face template and the face area in accordance with the position matching; and

extracting the face area based on the degree of matching.

Claim 3. (Original)

A face extraction method as defined in Claim 2, wherein the step of calculating the degree of matching further comprises the step of:

generating unsharp images of the face template and an area corresponding to the face template in the image; and

calculating the degree of matching between the unsharp images.

Claim 4. (Previously Presented)

A face extraction method as defined in Claim 1, wherein the face template has a three-dimensional shape.

Claim 5. (Original)

A face extraction method as defined in Claim 4, wherein the three-dimensional shape is formed by a three-dimensional wire frame.

Claim 6. (Previously Presented)

A face extraction method as defined in Claim 1, wherein the face template has a color different from a skin color.

Claim 7. (Original)

A face extraction method as defined in Claim 6, wherein the color different from the skin color is a complementary color of the skin color.

Claim 8. (Currently Amended)

A face extraction apparatus for extracting a face area from an image including a human face, the apparatus comprising:

display means for displaying the image and a predetermined face template;

input means for receiving an input for moving and transforming the face template;

position matching means for carrying out position matching between the face template and the face area to be extracted, by moving the face template and/or the image so that the face template is positioned on the face area to be extracted, transforming and/or rotating the face template and/or the image on the face area position according to the input from the input means by a user; and

extraction means for extracting the face area based on a result of position matching by the position matching means.

Claim 9. (Original)

A face extraction apparatus as defined in Claim 8, wherein the extraction means extracts the face area by calculating a degree of matching between the face template and the face area, according to the position matching by the position matching means.

Claim 10. (Original)

A face extraction apparatus as defined in Claim 9, wherein the extraction means generates unsharp images of the face template and an area corresponding to the face template in the image, and calculates the degree of matching between the unsharp images.

Claim 11. (Previously Presented)

A face extraction apparatus as defined in Claim 8, wherein the face template has a three-dimensional shape.

Claim 12. (Original)

A face extraction apparatus as defined in Claim 11, wherein the three-dimensional shape is formed by a three-dimensional wire frame.

Claim 13. (Previously Presented)

A face extraction apparatus as defined in Claim 8, wherein the face template has a color different from a skin color.

Claim 14. (Original)

A face extraction apparatus as defined in Claim 13, wherein the color different from the skin color is a complementary color to the skin color.

Claim 15. (Currently Amended)

A computer-readable recording medium storing a program to cause a computer to execute a method of extracting a face area from an image including a human face, the program comprising the procedures of:

displaying the image and a predetermined face template;

carrying out position matching between the face template and the face area to be extracted, by moving the face template and/or the image so that the face template is positioned on the face area to be extracted, transforming and/or rotating the face template and/or the image on the face area position according to an input from input means by a user; and

extracting the face area based on a result of the position matching.

Claim 16. (Previously Presented)

A computer-readable recording medium as defined in Claim 15, wherein the procedure of extracting the face area comprises the procedures of calculating a degree of matching between the face template and the face area in accordance with the position matching; and

extracting the face area based on the degree of matching.

Claim 17. (Original)

A computer-readable recording medium as defined in Claim 16, the procedure of calculating the degree of matching comprising the procedures of:

generating unsharp images of the face template and an area corresponding to the face template in the image; and

calculating the degree of matching between the unsharp images.

Claim 18. (Previously Presented)

A computer-readable recording medium as defined in Claim 15, wherein the face template has a three-dimensional shape.

Claim 19. (Original)

A computer-readable recording medium as defined in Claim 18, wherein the three-dimensional shape is formed by a three-dimensional wire frame.

Claim 20. (Previously Presented)

A computer-readable recording medium as defined in Claim 15, wherein the face template has a color different from a skin color.

Claim 21. (Original)

A computer-readable recording medium as defined in Claim 20, wherein the color different from the skin color is a complementary color to the skin color.

Claim 22. (Previously Presented)

A method of carrying out image processing on the face area extracted by using the face extraction method according to Claim 1, the image processing method comprising the step of:
converting a color tone of a desired area including the face area to a color tone of a predetermined target image.

Claim 23. (Previously Presented)

An image processing apparatus for carrying out image processing on the face area extracted by the face extraction apparatus according to Claim 8, the image processing apparatus comprising:
conversion means for converting a color tone of a desired area including the face area to a color tone of a predetermined target image.

Claim 24. (Currently Amended)

A computer-readable recording medium storing a program to cause a computer to execute a method of carrying out image processing on a face area extracted by the steps of:

displaying the image and a predetermined face template;

carrying out position matching between the face template and the face area to be extracted, by moving the face template and/or the image so that the face template is positioned on the face area to be extracted, transforming and/or rotating the face template and/or the image on the face area position according to an input from input means by a user; and

extracting the face area based on a result of position matching; and

converting a color tone of a desired area including the face area to a color tone of a predetermined target image.